

CHAMAEDOREA CASTILLO-MONTII (ARECACEAE), A NEW SPECIES  
FROM GUATEMALA

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ABSTRACT

A species of *Chamaedorea* Willd. (Arecaceae) from Guatemala is described as new and compared with related taxa.

KEY WORDS: *Chamaedorea*, Arecaceae, new species, Guatemala.

Recent field work in Guatemala in support of a project on *Chamaedorea* that will be published by the International Palm Society in 1990, has yielded an undescribed species from Izabal.

*Chamaedorea castillo-montii* D.R. Hodel, *spec. nov.* Figure 1. TYPUS: Guatemala. D.R. Hodel & J.J. Castillo Mont 868A (HOLOTYPUS: BH; Isotypus: AGUAT).

Subgeneris *Chamaedoropsis* Oersted. *Chamaedorea adscendeni* (Dammer) Burret et *C. volcanensi* D.R. Hodel & J.J. Castillo Mont affinis sed laminis simplicibus bifidis vel segmentis linearibus, inflorescentiis spicatis differt; *C. robertii* D.R. Hodel & N.W. Uhl affinis sed calycibus prominentibus, floribus masculis albidis, staminibus aequanibus corollam non exsertis multum.

Stem solitary, briefly procumbent with adventitious roots along its length, then erect to 1 m tall, 1.5-2.5 cm diam., green, conspicuously annulate, basal portion often covered with persistent leaf bases, internodes 1.5-2 cm long, often flowering when young and then lacking a well developed caudex and appearing acaulescent. Leaves 12-15, erect-spreading, bright green adaxially, paler abaxially, simple and bifid, less often variously pinnate; sheath 10-15 cm long, obliquely long open apically, clasping completely in a tubular manner only in basal fourth, green, minutely white spotted, longitudinally striate nerved, margins becoming rough, brown; petiole to 30 cm long, green and channeled



Figure 1. Plant from which type specimen of *C. castillo-montii* was collected, Izabal, Guatemala. Note pendulous staminate inflorescence (just left of center).

or flattened adaxially, green and rounded abaxially, minutely white spotted; rachis to 20 cm long, green and angled adaxially, lighter green abaxially; blade simple, to 38 x 27 cm, incised apically to more than half its length, interior margins to 22 cm long, entire, exterior margins to 38 cm long, toothed, lobes acute-acuminate, 30 x 10 cm, diverging at ca. 65 degrees, 11-13 prominent primary nerves on each side of the rachis, 2 less prominent secondaries between each pair of primaries, tertiaries numerous, or blade variously pinnate with 2-5 pinnae on each side of the rachis, all except the apical pair linear-lanceolate, 20 x 1.5 cm, falcately acuminate, a prominent midrib flanked by less prominent secondary nerves, apical pair of pinnae very broad, more than twice as broad as other pinnae combined, 9-10 nerved.

Inflorescences interfoliar, spicate: peduncles erect, to 25 cm long, 5 mm wide at the base and  $\pm$  flattened, 2 mm wide at the apex and rounded, very pale green where exposed or whitish where concealed at anthesis, orange where exposed or pale green where concealed in fruit; bracts 5, closely sheathing, acute-acuminate, bifid, green and minutely white spotted at anthesis, brownish in fruit, longitudinally striate nerved, prophyll 2-2.5 cm long, 2nd bract 7-10 cm long, 3rd 10-12 cm long, 4th 14-18 cm long and extending onto the rachis and concealing the rudimentary 5th bract. Staminate inflorescence with rachis to 30 cm long, flaccid, pendulous, pale greenish yellow at anthesis. Pistillate inflorescence with rachis to 10 cm long, rigid, erect to horizontal, pale greenish yellow at anthesis, orange in fruit.

Staminate flowers subglobose, 1.5-1.75 x 2 mm, whitish, borne in six alternating rows and very closely appressed but not contiguous, 0.5 mm apart, attaining anthesis first at the apex of the rachis then progressing toward the base, superficial, leaving elliptic scars 2.5 mm long; calyx well developed and prominent in bud, shallowly 3 lobed, lobes broadly rounded, sepals briefly connate basally, 1.25-1.5 x 2.5 mm, united in a thin tight cupule, membranous, tips truncate and inflexed, forming a flat rim; petals valvate apically, free nearly to the base and there briefly connate, 2.5-3 x 2.5 mm, ovate, rounded apically, fleshy; stamens equaling or slightly exceeding petals at anthesis, 1.75-2 mm long, filaments large, 1.5-2 x 0.5 mm, broadly columnar,  $\pm$  terete, flared basally, fleshy, anthers short, 0.5-0.75 mm long, thin, exerted and crowded in a cluster above the open petal tips, dorsifixed near middle, elliptic, versatile, sagittate basally; pistillode broadly columnar, 1.5-1.75 x 0.75 mm, flared basally, only slightly so apically, tip flat. Pistillate flowers borne in four loose rows, moderately dense but not contiguous, 0.5-2.0 mm apart, depressed globose, 1 x 1.75 mm, whitish, immersed for ca. half their height in prominent elliptic depressions 2.5 mm long; calyx 0.5 x 2 mm, thin, membranous, shallowly 3 lobed, lobes broadly rounded, sepals united in a short rim; petals tightly imbricate along basal half, valvate distally, deltoid, 1 x 1.75 mm, rounded or slightly acute, thin, membranous; staminodes absent; gynoeceium ovoid-pyramidal, 0.75-1 x 0.75-1.5 mm, style lacking, stigma lobes large, fleshy,

= triangular with a distal longitudinal groove in each. Fruits black, oblong, narrowed at both ends. 13 x 7 mm.

Distribution: Guatemala. Izabal: dense, wet forest. 600-900 m elev., highly localized.

Specimens Examined: Guatemala. Izabal: summit of Cerro San Gil, *D.R. Hodel & J.J. Castillo Mont 868A* (HOLOTYPE: BH; Isotype: AGUAT); *868B* (BH,AGUAT).

*Chamaedorea castillo-montii* is named for Juan José Castillo Mont, co-collector of the type and Curator of the Herbarium. Facultad de Agronomía, Universidad de San Carlos, Guatemala. The species is apparently restricted to the summit of Cerro San Gil overlooking the Atlantic Ocean on the coast of Izabal. It is not uncommon in the forest there, occurring from about 600 m elevation up to the summit at 900 m. Most individuals have simple and bifid leaves; about ten percent of the population, however, have a mixture of simple, bifid and variously pinnate leaves.

*Chamaedorea castillo-montii* is unique among Guatemalan members of the genus by its simple and bifid leaves with prominently raised nerves, spicate inflorescences and densely crowded but not contiguous staminate flowers with spreading petals. It appears close to *C. robertii* from Panamá and Costa Rica, with which it shares these features. However, *C. castillo-montii* can be distinguished by the broader and shorter blade, bifid to more than half its length, the more widely divergent lobes, the staminate flowers whitish, and the well developed and prominent calyxes. Among Guatemalan members of subgenus *Chamaedoropsis*, *C. castillo-montii* is closest to *C. adscendens* from which it can be distinguished by its simple and bifid leaves (if pinnate, then pinnae linear) and spicate staminate inflorescences. *Chamaedorea castillo-montii* has flowers remarkably similar to those of *C. volcanensis* from western Guatemala. However, the former can be distinguished by its spicate inflorescences, and simple and bifid leaves (or, if pinnate, then pinnae linear with a prominent midrib and less conspicuous secondary nerves).

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